NOTIFICATION OF ADDENDUM

ADDENDUM NO. 2

DATED 2/02/2010

Control	**6174-66-001**
Project	**RMC - 617466001**
Highway	**SH0016**
County	**ATASCOSA**

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an adendum notification which details the changes and the respective proposal pages which were added and/ or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped “This Proposal Issued for Informational Purposes.”

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

04/99

SUBJECT: PLANS AND PROPOSAL ADDENDUMS
PROJECT: RMC - 617466001 CONTROL: 6174-66-001
COUNTY: ATASCOSA
LETTING: 02/09/2010
REFERENCE NO: 0202

PROPOSAL ADDENDUMS

_ PROPOSAL COVER
X BID INSERTS (SH. NO.: Sheet 1-9)
X GENERAL NOTES (SH. NO.: Sheet A)
_ SPEC LIST (SH. NO.:)
_ SPECIAL PROVISIONS:
ADDED:

DELETED:

_ SPECIAL SPECIFICATIONS:
ADDED:

DELETED:

_ OTHER:

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

DELETED BID ITEM 316-2015 REPLACED WITH 316-2542
DELETED BID ITEM 316-2225 REPLACED WITH 316-2223
DELETED BID ITEM 341-2119 REPLACED WITH 341-2120

REVISIONS TO SHEET A OF THE GENERAL NOTES

REVISED PLAN SHEETS 5-16

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	104	2009		REMOVING CONC (RIPRAP) DOLLARS and CENTS	SY	140.000	1
	104	2011		REMOVING CONC (MEDIANS) DOLLARS and CENTS	SY	894.000	2
	104	2021		REMOVING CONC (CURB) DOLLARS and CENTS	LF	120.000	3
	134	2002		BACKFILL (TY B) DOLLARS and CENTS	STA	158.000	4
	164	2007		BROADCAST SEED (PERM) (URBAN) (CLAY) DOLLARS and CENTS	SY	770.000	5
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	9.240	6
	316	2223		AGGR(TY-PB GR-4 SAC-B) DOLLARS and CENTS	CY	801.000	7
	316	2542		ASPH(AC-15P OR AC-20-5TR OR AC-20XP) DOLLARS and CENTS	GAL	26,451.000	8
	340	2011	003	D-GR HMA(METH) TY-B PG64-22 DOLLARS and CENTS	TON	16,561.000	9
	341	2120	024	D-GR HMA(QCQA) TY-D SAC-B PG70-22 DOLLARS and CENTS	TON	7,275.000	10
	354	2045		PLANE ASPH CONC PAV (2") DOLLARS and CENTS	SY	13,906.000	11

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	354	2049		PLANE ASPH CONC PAV (6") DOLLARS and CENTS	SY	74,265.000	12
	416	2032		DRILL SHAFT (TRF SIG POLE) (36 IN) DOLLARS and CENTS	LF	79.200	13
	432	2001		RIPRAP (CONC)(4 IN) DOLLARS and CENTS	CY	106.000	14
	500	2001		MOBILIZATION DOLLARS and CENTS	LS	1.000	15
	502	2001		BARRICADES, SIGNS AND TRAFFIC HAN-DLING DOLLARS and CENTS	MO	4.000	16
	506	2001		ROCK FILTER DAMS (INSTALL) (TY 1) DOLLARS and CENTS	LF	90.000	17
	506	2009		ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	90.000	18
	506	2016		CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	222.000	19
	506	2019		CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	222.000	20
	506	2034		TEMPORARY SEDIMENT CONTROL FENCE DOLLARS and CENTS	LF	660.000	21

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	510	2001		ONE-WAY TRAFFIC CONTROL DOLLARS and CENTS	HR	500.000	22
	529	2071		CONC CURB (SLOTTED) DOLLARS and CENTS	LF	900.000	23
	530	2006		INTERSECTIONS (SURF TREAT) DOLLARS and CENTS	SY	4,755.000	24
	531	2006		CURB RAMPS (TY 2) DOLLARS and CENTS	EA	8.000	25
	618	2034		CONDT (PVC) (SCHD 80) (2") DOLLARS and CENTS	LF	100.000	26
	618	2035		CONDT (PVC) (SCHD 80) (2") (BORE) DOLLARS and CENTS	LF	210.000	27
	618	2038		CONDT (PVC) (SCHD 80) (3") DOLLARS and CENTS	LF	175.000	28
	618	2039		CONDT (PVC) (SCHD 80) (3") (BORE) DOLLARS and CENTS	LF	650.000	29
	620	2009		ELEC CONDR (NO. 6) BARE DOLLARS and CENTS	LF	1,180.000	30
	620	2010		ELEC CONDR (NO. 6) INSULATED DOLLARS and CENTS	LF	60.000	31
	621	2004		TRAY CABLE (4 CONDR) (12 AWG) DOLLARS and CENTS	LF	600.000	32

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	624	2008		GROUND BOX TY A (122311) W/APRON DOLLARS and CENTS	EA	4.000	33
	624	2014		GROUND BOX TY D (162922) W/APRON DOLLARS and CENTS	EA	1.000	34
	625	2001		ZINC-COAT STL WIRE STRAND (5/16 IN) DOLLARS and CENTS	LF	150.000	35
	628	2164		ELC SRV TY D 120/240 070 (NS)AL(E)PS(U) DOLLARS and CENTS	EA	1.000	36
	628	2295		ELC SRV TY D 120/240 070 (NS)AL(E)TP(O) DOLLARS and CENTS	EA	1.000	37
	658	2316		INSTL OM ASSM (OM-2Z)(FLX)GND DOLLARS and CENTS	EA	16.000	38
	662	2113		WK ZN PAV MRK SHT TERM (TAB) TY W DOLLARS and CENTS	EA	526.000	39
	662	2115		WK ZN PAV MRK SHT TERM (TAB) TY Y-2 DOLLARS and CENTS	EA	2,648.000	40
	666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	1,435.000	41
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	1,112.000	42
	666	2054		REFL PAV MRK TY I (W) (ARROW) (100MIL) DOLLARS and CENTS	EA	130.000	43

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2096		REFL PAV MRK TY I (W) (WORD) (100MIL) DOLLARS and CENTS	EA	18.000	44
	666	2102		REF PAV MRK TY I(W)36"(YLD TRI)(100MIL) DOLLARS and CENTS	EA	7.000	45
	666	2132		REFL PAV MRK TY I (Y) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	507.000	46
	666	2141		REFL PAV MRK TY I (Y)(MED NOSE)(100MIL) DOLLARS and CENTS	EA	6.000	47
	666	2160		REF PAV MRK TY II (W) (ARROW) DOLLARS and CENTS	EA	130.000	48
	666	2173		REF PAV MRK TY II (W) (WORD) DOLLARS and CENTS	EA	18.000	49
	666	2175		REF PAV MRK TY II (W) 36" (YLD TRI) DOLLARS and CENTS	EA	7.000	50
	666	2188		REF PAV MRK TY II (Y) (MED NOSE) DOLLARS and CENTS	EA	6.000	51
	666	2191		PAVEMENT SEALER 8" DOLLARS and CENTS	LF	1,435.000	52
	666	2195		PAVEMENT SEALER 24" DOLLARS and CENTS	LF	1,619.000	53
	672	2012		REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	267.000	54

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	2015		REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	958.000	55
	680	2001		INSTALL HWY TRF SIG (FLASH BEACON) DOLLARS and CENTS	EA	1.000	56
	680	2002		INSTALL HWY TRF SIG (ISOLATED) DOLLARS and CENTS	EA	1.000	57
	682	2001		BACK PLATE (12 IN) (3 SEC) DOLLARS and CENTS	EA	8.000	58
	682	2003		BACK PLATE (12 IN) (5 SEC) DOLLARS and CENTS	EA	4.000	59
	682	2022		VEH SIG SEC (12 IN) LED (GRN ARW) DOLLARS and CENTS	EA	4.000	60
	682	2023		VEH SIG SEC (12 IN) LED (GRN) DOLLARS and CENTS	EA	12.000	61
	682	2024		VEH SIG SEC (12 IN) LED (YEL ARW) DOLLARS and CENTS	EA	4.000	62
	682	2025		VEH SIG SEC (12 IN) LED (YEL) DOLLARS and CENTS	EA	16.000	63
	682	2027		VEH SIG SEC (12 IN) LED (RED) DOLLARS and CENTS	EA	16.000	64
	682	2043		PED SIG SEC (12")(2 IND)(HOUSING ONLY) DOLLARS and CENTS	EA	8.000	65

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	684	2009		TRF SIG CBL (TY A) (12 AWG) (4 CONDR) DOLLARS and CENTS	LF	1,325.000	66
	684	2012		TRF SIG CBL (TY A) (12 AWG) (7 CONDR) DOLLARS and CENTS	LF	1,800.000	67
	684	2080		TRF SIG CBL (TY C) (14 AWG) (2 CONDR) DOLLARS and CENTS	LF	1,100.000	68
	686	2006		INS TRF SIG PL AM(S) STR (TY B) LUM DOLLARS and CENTS	EA	2.000	69
	686	2043		INS TRF SIG PL AM(S) 1 ARM (44’) DOLLARS and CENTS	EA	1.000	70
	686	2045		INS TRF SIG PL AM(S) 1 ARM (44’) LUM DOLLARS and CENTS	EA	1.000	71
	686	2047		INS TRF SIG PL AM(S) 1 ARM (48’) DOLLARS and CENTS	EA	1.000	72
	686	2049		INS TRF SIG PL AM(S) 1 ARM (48’) LUM DOLLARS and CENTS	EA	1.000	73
	687	2001		PED POLE ASSEMBLY DOLLARS and CENTS	EA	2.000	74
	688	2001		PED DETECT (2 INCH PUSH BTN) DOLLARS and CENTS	EA	8.000	75
	6006	2001		SPREAD SPECTRUM RADIO DOLLARS and CENTS	EA	1.000	76

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	6006	2003		HELIAX CABLE DOLLARS and CENTS	LF	60.000	77
	6006	2004		ANTENNA (OMNI-DIRECTIONAL) DOLLARS and CENTS	EA	1.000	78
	6007	2001		REMOVING TRAFFIC SIGNALS DOLLARS and CENTS	EA	2.000	79
	6266	2001		VIVDS PROCESSOR SYSTEM DOLLARS and CENTS	EA	1.000	80
	6266	2002		VIVDS CAMERA ASSEMBLY DOLLARS and CENTS	EA	4.000	81
	6266	2003		VIVDS SET-UP SYSTEM DOLLARS and CENTS	EA	1.000	82
	6266	2005		VIVDS COMMUNICATION CABLE (COAXIAL) DOLLARS and CENTS	LF	800.000	83
	8251	2003		RE PM W/RET REQ TY I(W)4"(BRK)(100MIL) DOLLARS and CENTS	LF	2,160.000	84
	8251	2006		RE PM W/RET REQ TY I(W)4"(SLD)(100MIL) DOLLARS and CENTS	LF	28,088.000	85
	8251	2015		RE PM W/RET REQ TY I(Y)4"(BRK)(100MIL) DOLLARS and CENTS	LF	4,910.000	86
	8251	2018		RE PM W/RET REQ TY I(Y)4"(SLD)(100MIL) DOLLARS and CENTS	LF	27,824.000	87

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	8251	2033		PAVEMENT SEALER 4" DOLLARS and CENTS	LF	62,982.000	88
	8452	2001		LED COUNTDOWN PEDESTRIAN SIGNAL MODULE DOLLARS and CENTS	EA	8.000	89

Project Number: RMC 6174-66-001 **Sheet** A

County: Atascosa **Control:** 6174-66-001

Highway: SH 16

General Notes

TxDOT Project Supervisor – The project will be managed by:

Clint Rodriguez
2154 Second Street
Pleasanton, Tx 78064
Phone: (830) 569-2584
Fax: (830) 569-8713

========== **Asphalt Concrete Pavement** ==========

Type	Location	Depth	Rate/Area	Quant-Tons
Ty B	Main Rdwy	4 In	440 lbs/ 1 sy	16,561.00
Ty D Surf	Main Rdwy	1 1/2 In	165 lbs/ 1 sy	7,275.00

========== **Surface Treatment Data** ==========

Description	1st Course	Intersections
Area	88,171 SY	4,755 SY

-----See Bid Item-----

Description	**1st Course**	**Intersections (Info Only)**
Area	88,171 SY	4,755 SY
Asph—type	AC-15P or20-5TR or20XP or10-2TR	AC-15P or20-5TR or20XP or10-2TR
Asph—rate(gal/sy)	0.30/1 = 26,451 Gal	0.30/1 = 1,427 Gal
Aggr—Gr	Ty-PB Gr 4 SAC-B	Ty-PB Gr 4 SAC-B
Aggr—rate (cy/sy)	1/110 = 801 CY	1/100 = 48 CY

Each contract awarded by the Department stands on its own and as such, is separate from other contracts. A contractor awarded multiple contracts, must be capable and sufficiently staffed to concurrently process any or all contracts at the same time.

Notify the Engineer's office by telephone each morning by 8:15 a.m. that work is scheduled, with work location and time of arrival or reason for not working that day.

Item 2 "Instructions to Bidders"

This project includes plan sheets that are not part of the bid proposal.

View plans on-line or download from the web at:
http://www.dot.state.tx.us/business/plansonline/plansonline.htm.
Order plans from any of the plan reproduction companies shown on the web at:
http://www.dot.state.tx.us/gsd/plans/companies.htm .

Item 5 "Control of Work"

Remove existing raised pavement markings as the work progresses or as approved. This work is subsidiary to the various bid items. Properly dispose materials removed.

Call the Texas One Call System at 1-800-245-4545 to locate utilities prior to construction.

Contact the Engineer @ (830) 569-2584 or (210) 615-5975 SAT Traffic when construction operations are within 400 feet of a signalized intersection to determine/verify the location of loop detectors, conduit, ground-boxes, etc. Repair or replace any signal equipment damaged by construction operations. The method of repair or replacement shall be pre-approved and inspected.

Depending on the type and extent of the damage, the Engineer reserves the right to perform the repair or replacement work and the Contractor will be billed for this work.

Prevention of Migratory Bird Nesting

It is anticipated that migratory birds, a protected group of species, may try to nest on bridges, culverts, vegetation, or gravel substrate, at any time of the year. The preferred nesting season for migratory birds is from February 15 through October 1. When practical, schedule construction operations outside of the preferred nesting season. Otherwise, nests containing migratory birds must be avoided and no work will be performed in the nesting areas until the young birds have fledged.

Item 6 "Control of Materials"

Remove materials or debris within the construction limits not incorporated in the finished roadway section of right of way and dispose of in a manner acceptable to the Engineer at the expense of the Contractor.

If waste areas or material source areas result from this project, the Contractor is reminded to follow the requirements of the Texas Aggregate Quarry and Pit Safety Act. In addition, it is requested that these areas not be visible from any highway on the State system.

--- Intersection of SH 16 @ SH 97 [Traffic Signal Replacement] ---

When contamination (hazardous materials) is discovered, construction activities in that area should be suspended and secured for worker and public safety. If possible, the contractor should be redeployed on the construction project to avoid or minimize construction downtime. Do not allow the prime contractor, subcontractor, or TxDOT personnel to handle or disturb the contaminated material or the surrounding soil. Contact the Engineer @ (830) 569-2584
if any questions and/or for additional instructions.

Item 7 "Legal Relations and Responsibilities"

The total disturbed area for this project is 16.500 acres. . The portion of the total disturbed area classified as an exempt maintenance activity is 16.290 Acres. Therefore, 0.21 Acres of the disturbed area, all Contractor project specific locations (PSLs), within 1 mile of the project limits, for the Contract will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain any required authorization from the TCEQ for any Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer (to the appropriate MS4 operator when the project is on an off-state system route).

Item 8 "Prosecution and Progress"

Working days will be computed and charged in accordance with Article 8.3.A.6, Other. Working days will be charged Monday thru Friday, excluding national or state holidays, if weather or other conditions permit the performance of the principle unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hours between 8:00 am and 4:00 pm, unless otherwise shown in the contract. Work on national holidays will not be permitted without written permission of the Engineer. If work requiring an inspector is performed on a holiday and weather or other conditions permit the performance of work for 7 hours between 8:00 am to 4:00 pm, a working day will be charged.

Item 9 "Measurement and Payment" (Police Officers – Force Account)

As directed or approved, provide uniformed, off-duty law enforcement officers with marked vehicles during work that requires a lane closure. The use and number of police officers with marked vehicles shall be approved by TxDOT at least 48 hours prior to any work day that the use of police officers is proposed for traffic control. No payment shall be made for any unauthorized police officers utilized that do not have prior TxDOT approval. The officer(s) in marked vehicle(s) shall be located as approved to monitor or direct traffic during the closure. The method used to direct traffic at signalized intersections shall be as approved.

Complete the weekly tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided. For reimbursement, the invoice must show the officer's name and badge number, or other form of identification acceptable to the Engineer, and date the police officer was utilized. The department will pay police officers only for the hours actually worked. Cancellation fees, minimums, scheduling fees, etc. will not be paid.

Item 300 "Asphalts, Oils, and Emulsions"

The asphalt binder used in the manufacture of the non-surface layers of hot mix asphalt concrete, shall be PG 64-22.

The asphalt binder used in the manufacture of the hot mix asphalt concrete surface layer shall be PG 70 - 22.

Item 316 "Surface Treatments"

When using latex asphalt, take precautionary measures to avoid drifting of asphalt onto traffic and adjacent properties.

Set a string line for all surface treatment operations unless otherwise approved .

Flux oil or emulsions may be used for precoating LRA and LRA-Trap Rock blends. When emulsions are used as the pre-coat material, the precoated aggregate will be adequately dried . Provide adequate drying and a minimum 30 day curing period before delivery of the aggregates.

Allow for the addition of lime slurry if the aggregates to be precoated are found to have stripping characteristics. If lime is required, lime meeting the requirements of Item 263 to the aggregate at the rate of 1% hydrated lime by weight of aggregate and shall be added in slurry form at the cold feed. The cost of the lime will be considered subsidiary to this Item. The lime slurry will be added at the stockpile, but not more than 24 hours in advance of use.

Ensure that the asphalt used for precoating the aggregate at the plant and the asphalt used for the surface treatment will not result in a reaction that may adversely effect the bonding of the aggregate and asphalt during the surface treatment operation.

The addition of baghouse fines will not be permitted in the production of precoated material.

Mixes that do not maintain flow qualities where the material can not be satisfactorily spread by approved mechanical spreading devices will not be acceptable.

Stockpiles of aggregate precoated with AC may generate excessive heat build-up resulting in damage to the asphalt and/or aggregates if adequate cooling has not been initially provided. Stockpiles showing evidence of heat damage (as determined by the Engineer) can be rejected by the Engineer.

Aggregates used for the final surface shall have a Flakiness Index not to exceed 15 and shall be subjected to 5 cycles of the Soundness Test in accordance with Test Method Tex-411-A. The percent loss shall not be greater than 30 when magnesium sulfate is used. This test will not apply to blends with crushed trap rock, crushed rhyolite, crushed limestone rock asphalt or lightweight aggregate.

Furnish aggregate with a minimum " B " Surface Aggregate Classification.

--Item 340, 341 Or 344--

Table 6, in Item 340, Table 8 in Item 341 and Table 8 in Item 344, Hamburg Wheel Test Requirements tested in accordance with Tex-242-F are changed for PG 64-22 or lower and PG 70-22. Minimum number of passes at 0.5" Rut Depth, Tested at 122 degrees F will be 5,000 and 10,000 respectively.

Design all mixture types using a target laboratory-molded density of 96.5%.

The asphalt plant shall have truck scales as defined in Item 520. Give three weight tickets bearing the date, the truck number, the gross, net & tare weights to the truck driver for the State inspector at the spreading and finishing operation. Trucks may be required to weigh on public scales or portable platform scales to verify the weight of the ticket.

Submit a copy of the Tex 233-F production charts on a weekly basis. At the end of the ACP work, provide all originals.

Crushing of aggregate for hot mix and immediate use for production of the mix is not allowed. Stockpile the aggregate until enough material is available for five days of production unless prior approval is provided. Hold a pre-placement meeting one month prior to the placement of the hot mix.

The main purpose of hot mix cores taken by the Department are for payment calculations. If (for quality control purposes) the core information is needed sooner, take additional cores.

Do not use diesel or solvents as asphalt release agents in production, transportation, or construction. A list of approved asphalt release agents is available from the Department.

No more than one hot mix lot will be open for any specific type of hot mix, unless authorized. After a lot is open and the Contractor gets approval to change plants, the previous lot will be closed and a new lot will be opened. The numbering for the lots produced at the new plant will start with No. 1. If allowed to switch back to the original or previous plant, the next lot from that plant will resume numbering sequentially from the last lot produced by that plant.

Schedule lay-down placement where uneven travel lanes are minimized and eliminated weekly.
If asphalt material is obtained from other than a commercial source presently inspected by TxDOT, furnish a Type D structure for the asphalt mix control laboratory for the Engineer's use. Provide a minimum height of 8 feet and a minimum of 400 square feet of gross floor area for permanently located asphalt plants or 200 square feet for a temporary plant. The floor area will be partitioned into a minimum of two rooms, with a minimum of two windows per room. The floor shall have an impervious cover and sufficient strength to support the testing equipment. Portable structures shall be support blocked for stability and shall be tied down.

Minimum Roadway Placement Temperature

--Item 340, 342, 344, 346, 3000 & 3001--

Place mixture when the roadway surface temperature is equal to or higher than listed in Table 1 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer.
Placement may be allowed to begin prior to the roadway surface reaching the required temperature if conditions are

such that the roadway surface will reach the required temperature within 2 hrs. of beginning placement operations. Place mixtures only when weather and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 1
Minimum Pavement Surface Temperatures

		Minimum Pavement Surface Temperatures in Degrees Fahrenheit *	
Specification Item Number	High Temperature Binder Grade	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
Items 340 & 344	PG 64	45	50
	PG 70	55	60
	PG 76	60	60
Items 342 and 346 SS 3000 & SS 3001	PG 76	65	70
	Asphalt Rubber (A-R)	65	70

* Except for PG 64, may pave at temperatures 10º F lower than the values shown in Table 1when utilizing a paving process or equipment that eliminates thermal segregation. In these cases, use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Text Method 244-F to demonstrate that the uncompacted mat has no more than 10º F of thermal segregation.

Item 354 " Planing and Texturing Pavement "

The Contractor will separate and make available an Estimated **655** CY of the Salvaged Base Material from Station **886+00** to Station **1020+00** for use as Item 134 - Backfill (Ty B). Contractor will place material at locations as determined by the Engineer.

The Contractor will deliver an Estimated **12,300** CY of the Salvaged Base Material from Station **886+00** to Station **1020+00** to SH 97 & Spur 162 and/or to SH 173 & SH 16.

The Department will retain ownership of the planed material which is removed from Station **1020+00** to Station **1037+00**. The material will be delivered to the Tx D.O.T. yard located at 2154 Second Street, Pleasanton, Tx. 78064.

Item 416 "Drilled Shaft Foundations"

Concrete for drilled shafts shall be Class C.

Item 502 "Barricades, Signs, and Traffic Handling"

Furnish and install all signs, barricades and other incidentals necessary for proper traffic control, in accordance with part VI of the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways" and in accordance with the standard plan sheets. Additional devices may be needed to supplement these requirements. All warning signs shall be factory made and in satisfactory condition.

When a Traffic Control Plan (TCP) standard requires the use of one of the following devices, a Type III barricade, channelizing devices or shadow vehicle with orange flags or warning lights, use a shadow vehicle equipped with a Truck Mounted Attenuator (TMA).

Erect temporary traffic control signs in locations that will not obstruct the traveling public's view of the permanent roadway signing or obstruct sight distance at intersections and curves.
City streets will be closed temporarily while construction is ongoing within the intersection area. Prior to and after construction is completed, the streets will remain open to the traveling public. Barricades and required signs for street closures will be erected and removed as work progresses.

Any lane closures will require prior notification. Notify the Engineer 48 hours in advance of lane closures. If a lane closure has to be cancelled due to weather or other unforeseen circumstances, immediately notify the inspector and reschedule the lane closure as necessary.

In addition to providing a Contractor's Responsible Person (CRP) and a phone number for emergency contact, have an employee(s) available to respond on the project for emergencies and for taking corrective measures within 30 minutes.

No more than one lane will be blocked at any time at a specific work site, unless otherwise authorized.

Erect signs in locations not obstructing the traveling public's view of the normal roadway signing or necessary sight distance at intersections and curves.

When arrowboards are required, provide a standby unit in good working condition at the jobsite ready for immediate use.

Barricades will be removed once construction is complete and only vegetative watering is being performed. The use of temporary signs when performing vegetative watering will be acceptable.

Existing traffic signals shall remain in operation at all times except when necessary to be turned off for specific installation operations. Whenever it is necessary for the signals to be turned off, the contractor shall hire off duty police officers to control the traffic until the signals are back in satisfactory condition.

Item 506 "Temporary Erosion, Sedimentation, and Environmental Controls"

Temporary Erosion, Sediment and Water Pollution Control Measures are proposed to control pollutants in storm water discharges. These practices are based on information contained in the TxDOT Storm Water Management Guidelines. The schedule of implementation of these practices will be based on intended sequence of major soil disturbing activities. Disturbed areas on which activity has ceased (temporary or permanently) will be stabilized within 14 days unless activities are scheduled to resume within 21 days.

Place erosion and sediment controls prior to any construction and according to the plans or as directed or approved. Place all controls in a manner which will prevent direct contamination of waterways.

Item 510 "One Way Traffic Control"

The length of the one-way traffic control section shall be limited to 1000 Feet, unless otherwise authorized.

Item 618 "Conduit"

It might be necessary to saw-cut existing concrete at some locations in order to run conduit to a proposed location. As such, existing concrete shall be saw-cut, removed from the wire fabric and the wire fabric cut and bent to accommodate the conduit. After the conduit has been placed in its final position, the wire fabric shall be bent back to its original position and the trench shall be backfilled with Class "A" concrete. This work is considered subsidiary to this item.

Item 624 "Ground Boxes"

Place concrete aprons around all ground boxes installed in sodded areas. Precast aprons will not be allowed.

Legibly imprint the cover with the words "Danger High Voltage" as required by the "Electrical Details" State Standard Sheet(s). In addition, imprint "Traffic Signal", "TMS", "Illumination", or whatever other system will be housed in the ground box. The ground box locations shown on the plans are approximate and can be adjusted to better fit field conditions when approved.

Item 628 "Electrical Services"

The Contractor shall make all arrangements for electrical service, and shall comply with local standards and practices for proper installations.

Item 662 "Work Zone Pavement Markings"

Remove work zone marker tabs placed prior to the final course of asphaltic concrete pavement or surface treatment removed daily as the ACP operations progress. This removal is subsidiary to this Item.

Item 666 "Reflectorized Pavement Markings"

TY I material will be TY B-Alkyd in accordance with DMS-8220.

After the surface has cured for a minimum of two (2) calendar days, been cleaned and prepared according to the specifications and as directed. Apply type II markings in accordance with this item, the plans, Texas MUTCD and/or as directed/approved. The thermoplastic (Type I) markings may be applied directly over existing painted pavement markings where applicable.

The thickness of TY I markings for all lines (lane, edge, no passing, etc.) shall be 0.10 inches (100 mills). These thicknesses (not including the thickness of the surface applied glass beads) are required for the full width and length of the line being placed.

If TY II material is used as the sealer for TY I markings, place the TY II material a minimum of 14 calendar days (to provide adequate curing) in advance of the TY I markings.

Item 680 "Installation of Highway Traffic Signals"

Work under this item shall consist of furnishing and installing all required materials and equipment necessary for the complete and operating traffic signal and overhead flashing beacon assemblies at the following locations:

SH 16 at SH 97
SH 16 at SH 173

Any signal equipment damaged during construction shall be replaced in it's entirety by the contractor at their expense.

For this project, the complete controller assemblies and cabinet will be provided by the Contractor. The contractor will be responsible for connecting all field wiring as approved/directed by the Engineer. The traffic signal controllers furnished by the Contractor shall be compatible with existing MARC-NX systems.

The locations shown on the plans for signal pole foundations, controller foundations, conduit and other items may be adjusted with the approval of the Engineer to better fit field conditions.

All permanent, small, traffic signal related signs mounted on the signal poles shall be furnished and installed by the contractor. The contractor shall furnish Pelco parts or approved equal hardware for mounting signs. The cost of erecting these signs shall be considered subsidiary to various traffic signal bid items.

Removal of signs and/or signs and mounts that are in conflict with the installations of the traffic control devices shall be considered subsidiary to various traffic signal bid items.

High pressure sodium lamps shall meet ANSI C78 requirements and shall be the type that extinguishes at the end of usable lamp life and remains extinguished without cycling. 400 watt lamps shall contain less that 4.0 MG of mercury. 250 watt lamps shall contain less than 3.0 MG of mercury. Lamps shall be lead free. Lamps shall pass the Federal Toxic Characteristic Leachate Producure (TCLP).

Flashing Beacons (Item 685) and Ped poles (Item 687) included within the project shall feature single-pole breakaway disconnects. Use Bussman HEBW, Littlefuse LEB, Ferraz-Shawmut FEB, or equal on ungrounded conductors. For all grounded conductors use Bussman HET, Littlefuse LET, Ferraz-Shawmut FEBN, or equal. Breakaway connectors have a white colored marking and a permanently installed solid neutral.

Bond UFER ground with signal pole grounding lug using #6 bare conductor as approved.

Item 682 "Vehicle and Pedestrian Signal Heads"

All traffic signal sections shall be made of polycarbonate resin and shall be by the same manufacturer.

Signal faces shall remain covered until placed in operation.

All pedestrian signal faces shall be the single section LED Countdown Type. Die cast polycarbonate is acceptable in lieu of die cast aluminum. All mounting attachments shall be constructed of steel pipe and mounted as shown on the plans.

Mast arm pole assemblies proposed under this contract shall use cable mounting bracket assembly Option "C" as shown on the State Standard Sheet(s) "Single Mast Arm Assemblies". Brackets shall be installed per manufacturer's recommendations.

Signal heads shall be level and plumb.

Item 684 "Traffic Signal Cables"

Each cable terminating in the controller cabinet shall include an extra 10 ft of length. All cables shall be continuous (without splices) from terminal point to terminal point or as directed/ approved by the engineer. All proposed signal cable shall be #12 A.W.G. stranded copper. The number of conductors required shall be as shown on the plans.

The following table indicates how traffic signal cable shall be connected to the signal sections:

SIGNAL SECTIONS / PEDESTRIAN SIGNALS

CONDUCTOR NO.	COLOR	TERMINAL CONNECTION
1	BLACK	YELLOW BALL
2	WHITE	NEUTRAL / NEUTRAL
3	RED	RED BALL / DON'T WALK
4	GREEN	GREEN BALL / WALK
5	ORANGE	YELLOW ARROW
6	BLUE	GREEN ARROW
7	WHITE/BLACK TRACER	SPARE

Item 688 & 684

The pedestrian push button shall be raised or flush and be a minimum of 2 inches in the smallest dimension. The force required to activate the control shall be no greater than 5 LB/F.

The pedestrian push button shall be wired with a 2/C#14 loop detector cable in lieu of a #12 A.W.G. XHHW wire.

Item 6007

The contractor and the engineer shall inventory all signal equipment before removal. All salvageable equipment shall be delivered to TxDOT's San Antonio District, Signal Shop, located at 4615 NW Loop 410 (corner of IH 410 and Callaghan Road) in San Antonio, Texas or to the Area Office as directed. The contractor shall be responsible for disposing of all other items deemed unsalvageable.